Prof Ian Cullimore BSc PhD

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Member of the IEEE
Member of the ACM

Visiting Professor, NMITE (aka University of Hereford, UK)

SYNOPSIS

Computer Patent and other Expert Witness (37 Cases to date, 27 Expert Reports written, 13 Depositions, 4 IPR cases, 1 Court Case at trial at the Central Criminal Court, aka the Old Bailey, London, 1 attendance to give evidence at an Evidentiary Hearing at the American Arbitration Association, San Francisco, 1 other Court attendance at Oakland). Experienced hi-tech CEO/CTO-level technology expert, yet still very hands-on (architecting, coding). Much experience both in the UK and California (Silicon Valley & LA) in companies ranging from small startups to large corporations, and in building and managing software and hardware teams. Specialize in AI[1], IoT, embedded, handhelds, smartphones, mobile, operating systems, device drivers, communications, ultra-low power systems, interfacing to the Cloud, Android, iOS, Symbian OS, Windows, WinCE, games consoles OS, mobile gaming, Linux, software/firmware/hardware

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[1] I have been researching AI since 1991 for my PhD thesis (An Analysis and Implementation of Informal Human-Computer Interaction, University of Sussex, 2000), with research going back to the 1970's.

design, electronics, FPGA, VHDL, Digital Audio (DSP, AES67, CobraNet, Dante). Entrepreneur; start-up and young company specialist. Raised Angel and VC rounds. Taken startups to Exit. Much experience interfacing with Boards, Investors, and sales/marketing/bizdev groups.

Patent and Other Expert Witness Work

Jan 2025 - *Turner v Apple* (for the Defendants). Morrison Foerster, San Francisco. Ref Janie Buckley. Northern District of California. Case No. 20-cv-07495-EJD. Deposition given March 2025 (San Francisco). Re class action suit, cellular data usage.

May 2024 - *LiTL v Dell Inc.* (For the Defendants). Farella Braun+Martel, San Francisco CA. Ref Eugene Mar. Case No. 1:23-cv-00121-RGA (D. Dell). Re laptop design patents.

Mar 2024 - *Wapp v JPMorgan et al* (For the Defendants). Jones Day, San Francisco CA. Civil Action No. 4:23-cv-01137-ALM. Ref Stephen Bradley, Rota Yoon. Re mobile phone software development tools.

Feb 2024 - *Fall Line v Arby's et al* (For the Defendants). Alston & Bird, Atlanta GA. CIVIL ACTION NO. 5:23-cv-110. Ref Katie Donald. Re computerized questionnaire systems.

Dec 2023 - *Toast v Gratuity* (For the Defendants). Devlin Law, DC. Ref Alan Wright. Case No. IPR2023-01408. Expert Report Written re hospitality gratuity (tips) systems. Deposition given March 2024.

Oct 2023/24 *Tiare v Starbucks & Walmart* (For the Defendants). Alston & Bird, Atlanta GA. Ref Carter Babaz. Expert Report Written. re handheld wireless ordering systems. *CASE SETTLED OUT OF COURT.*

April 2023 - *Softex LLC v Absolute Software Corporation, Dell, HP, Lenovo, et al.* (For the Defendants). Cooley LLP, Palo Alto CA, Ref Samuel Whitt. Low-level software security systems in ROM BIOS. Re US Patents 8,752,101; 8,909,809; 9,769,427. Expert Report Written for Claims Construction. Deposition given by Zoom November 2023.

Mar 2022 - *Future Link Systems, LLC v Realtek Semiconductor Corporation*. ITC # 337-TA-1295 (For the *Defendants*). K&L Gates, Ref Theodore Angelis. Re

US patents 7,685,439 & 8,099,614, alleged infringement of ARM Cortex A53 design.

2021 -   *Ikorongo Tech. LLC v Lyft, Inc,* C.A. No. 20-258-ADA (USDC - W.D. Tex.). (For the *Defendants*). Fish & Richardson, Ref Sara Fish. Re proximity software and hardware technologies. Expert Report written.

2021 -   *Ikorongo Tech. LLC v Bumble Trading LLC,* C.A. No. 20-256-ADA (W.D. Tex.). (For the *Defendants*). Fish & Richardson, Ref Sara Fish. Re 'dating app' software and hardware technologies.

2021 -   *Wireless Discovery LLC v Bumble Trading LLC et al,* C.A. No. 6:20-CV-762-ADA (W.D. Tex.). (For the *Defendants*). Fish & Richardson, Ref Sara Fish. Re 'dating app' software and hardware technologies.

2021 - 22   *Mynette Technologies, Inc. v US Government, Idemia Identity & Security USA LLC, Gemalto, & Unisys.* (For the *Defendants*). Armstrong Teasdale LLP, St. Louis, MO. Re RFID screening technology for passports.

2021 -   *Express Mobile, Inc. v. Adobe Inc. and X.Commerce Inc. d/b/a Magento, (*Case No. 3:20-cv-08297-RS, for the *Defendants*). Arnold & Porter Kaye Scholer LLP. Ref Marty Koresawa. IPR of patent US 9,063,755, re presenting information on mobile devices. Expert Report written.

2020   *Atari Interactive, Inc. v Target Corporation* (Case No. 0:20-cv-00054-PJS-BRT, for the *Defendant*). Trade Dress infringement case *(Target were using in-store displays which mimicked the Atari 'Pong' game)*. Ref Kelly Fermoyle, Peter Routhier, Faegre Drinker Biddle & Reath LLP, Minneapolis. Expert Report written. Settled Out Of Court Nov 2020.

2019 - 2020   *Facebook v Blackberry* (For the *Defendant*). Ref John McKee, Quinn Emanuel Urquhart & Sullivan, NYC. Patent infringement case, *(concerning software and user interface design issues on smartphones)*, Inter Partes Review (IPR). Expert Report written. Deposition given (by video, Zoom) April 2020.

2019 - 2020   *Bot M8 LLC v Sony Corporation* (For the *Plaintiff*). Ref Aaron Frankel, Kramer Levin, NYC. Patent infringement case (*Video games design aspects)*. Expert Report written. Deposition given (by video, Webex) May 2020.

2019 - 2020   *Innovation Sciences v Resideo* (was *Honeywell*) (For the *Defendant*)¸Ref Kate Cappaert, Steptoe & Johnson, Washington DC. Patent infringement

case, at the International Trade Commission (ITC) (*design and use of Internet communications systems, wired and wireless*). Deposition given May 2020 (by video, Zoom).

2018 - 2019 *Abe v Apple* (For the *Defendant*). Patent infringement case *(smartphone user interface design issues)*. Ref Vincent Zhou, O'Melveny & Myers LLP, Los Angeles. Expert Report Declaration written in support of petition by Apple for an Inter Partes Review (IPR). *Status: settled out of court.*

2018 - 2019 *Parkridge Limited et al v Indyzen,Inc. et al.* (For the *Plaintiff*). AAA Case No. 01-17-0003-4918. Ref Zach Clark,. Adam Wolek, Taft Stettinius & Hollister LLP, Chicago. *Investigating claims of inadequate performance and quality in a set of subcontracted software programs*. Expert Report written. Deposition given March 2019, Redwood City, CA. Source Code Review undertaken. Attended Arbitration Hearing at the American Arbitration Association (AAA), San Francisco, May 2019 where I gave Evidence.

2018 - 2019 *Qualcomm Incorporated v Apple Inc.,* Civil Action No. 3:17-CV-02403-CAB-MDD in the Southern District of California (for the *Defendant*). **Note: Two Separate Patent Cases.** Fish & Richardson (Houston TX), ref Thad Kodish, Sara Fish. Expert Report written on Claim Construction, and Deposition given on this July 2018 (Atlanta GA). *(Smartphone user interface design issues). Status: settled under the Qualcomm-Apple Grand Settlement.*

2017 *Semcon v MediaTek* (for the *Defendant*). LTL Attorneys (Los Angeles). Expert Report on *embedded Linux and Android power management technologies for smartphones and smart TVs*. Source code reviews. Case currently stayed.

2015 - 2017 *Phoenix v VMware* (for the *Defendant*). Morrison Foerster (San Francisco). Case No. 5:15-cv-01414-HSG. Ref Diana Kruze. *Re software license agreement*. Expert Report on technology issues written. Source Code Review undertaken. Deposition given. Attended Court case Oakland, CA, May - June .2017. *Status: settled in full favor of the Defendant.*

2015 - *Papst Licensing GmbH* v *Hewlett Packard Corporation* (for the *Defendant*). Fenwick & West (Mountain View, CA). Case No. 1:15cv497 et al. Ref Charlene Morrow. Re infringement. Technical analysis undertaken. Case currently stayed, looks like it is restarting.

2015 - 2017   *Smart Skins LLC v Microsoft Corporation* (for the *Plaintiff*). Proskauer Rose LLP (Boston, MA). CASE NO. 2:15-CV-00544-MJP. Ref John M. Kitchura, Jr. Re infringement and invalidity. Claims Construction Expert Report written. Validity Expert Report written. Infringement Expert Report written. Undertook a teardown of Microsoft Surface keyboard designs and reverse-engineered the (serial and USB) communications protocols. Deposition given (April 2016). Expert Report written for IPR proceedings. Case settled.

2013 - 14   *Monec v Samsung* (for the *Defendant*). Fish & Richardson (Washington DC). Expert Report written. Deposition given. Ref Linhong Zhang, Chris Winter, Joseph Colaianni. Re Smartphone design issues.

2013   *Cradle IP v Texas Instruments* (for the *Defendant*) Covington & Burling (Redwood City, CA). Expert Report written. Ref Anupam Sharma, Hyun Byun. Re Power management issues.

2012   *St. Clair Intellectual Property Consultants, Inc., v. Motorola Mobility Inc.* (for the *Defendant*). (Representing Motorola Mobility; case stayed).

2012   *Zynga v King.com* (for the *Defendant*). Origin Ltd, London. Ref Peter Langley, Colm MacKernan. Online video game copyright infringement.

2011   *Optimum Power Solutions LLC v Apple, Inc.* (for the *Defendant*). Hogan Lovells (Washington DC) Ref Joseph Rafferto, Celine Crowson.

2011   *St. Clair Intellectual Property Consultants Inc. v Acer America Corporation, Acer Inc, Dell Inc, Gateway Companies Inc, Gateway Inc, Intel Corp, Lenovo (United States) Inc, Microsoft Corporation, Toshiba America Inc, Toshiba America Information Systems Inc,, and Toshiba Corporation* (for the *Defendants*). Fish & Richardson (Washington). Expert Report written. ref Scott Elengold. 'The Function Call Monitoring Patents'. (Power management issues). Also counterclaim led by Microsoft: *Microsoft Corporation v St Clair Intellectual Property Consultants Inc.* For the *Plaintiff*.

2011   *St. Clair Intellectual Property Consultants v Apple Inc.* (for the *Defendant*). Cooley LLP (Palo Alto) Ref Timothy Teler.

2008   *Microsoft Corporation v Tom Tom*; *SPT v Tom Tom*; *Garmin v Tom Tom*; *Bosch v Tom Tom*. (for the *Defendant*). Expert Report written. Origin Ltd, London. Ref Peter Langley, Colm MacKernan

2008	*Symbol Technologies Inc. v Janam Technologies LLC* (for the *Defendant*). Expert Report written. Deposition given. Kenyon & Kenyon, New York, ref John Kenny.
2004-5	*Khyber Technologies Corporation v Hewlett Packard Company* (for the *Defendant*). Expert Report written. Deposition given. Kenyon & Kenyon, New York ref Michael J Lennon
1986-87	*The Crown v Dye et al.* (for the *Plaintiff*). Expert Report written. Computer Forensics Expert Witness in Old Bailey (Central Criminal Courts, London) case, largest drugs bust case to that date. Defendant had saved deleted data on his computer, which I was able to retrieve.
1985	For *Wilkinson Kimbers* (London). Copyright infringement case concerning video games ROM code. Extracted ROMs from motherboards, did forensic examination on code to show copying had taken place.
- present	One Court appearance (UK); One testimony given at the American Arbitration Association (San Francisco); One Court attendance (Oakland, USA).

Patents Held in My Name

Ultra-Small, Ultra-Low Power Single-Chip Firewall Security Device with Tightly-Coupled Software and Hardware (US 9,705,848 B2)

TCP/IP Stack-Based Operating System (US 9,436,521 B2)

Ultra-Low Power Single-Chip Firewall Security Device, System and Method (US 8,875,276 B2)

Massively Multicore Processor and Operating System to manage Strands in Hardware (US 8,607,086 B2)

TCP/IP Stack-Based Operating System (US 8,335,864)

Apparatus and method of communicating with RFID tags (US 7,455,217)

Method of RFID Data Tracking (US 7,040,532)

Computer Power Management System (US 5,560,024)

Computer Power Management System (US 5,428,790)

Compact Portable Computer, EP 0479915

Employment/Consulting/Start-Ups

2/2020 – 2025   *Self-employed Soft/Firm/Hardware/Electronics/FPGA/VHDL Consulting Engineer*

Consulted for Peavey Electronics (Music and Commercial Audio) (USA, UK); developing VHDL for FPGAs, board bring-up, DSP (Digital Signal Processing), digital and analog audio, for the Professional PA Market.

6/2015 –   *Self-employed – Software/Hardware Designer and Developer, Hi-tech Startup Specialist, Patent (and other) Expert Witness, Consulting and Contract Engineering projects.*

I currently specialize in operating system design and development for advanced small devices, IoT ('Internet of Things') hardware and software product designs, and Expert Witness (patents, computer forensics etc.) consulting.

I trade through my personal UK corporation Crushproof Ltd. I am currently developing an IoT security device, have designed the hardware, and am developing embedded software (with my own Operating System design and firmware for the unit), as well as a back-end Internet server software system Platform (C/C++, LAMP), and iPhone and Android apps. US Provisional Patents filed.

10/2012 – 5/2015   *Paqet Systems Corp* (Sunnyvale, CA, and UK)

Co-founder and CTO. Silicon Valley & UK startup specializing in Ultra Low Power software operating systems for Machine-to-Machine ('M2M'), Sensor Hubs, Wearables and Internet Of Things ('IoT') devices on ARM microprocessors. Two provisional patents filed. Developing ultra-low power IoT node and bridge embedded operating systems software.

11/2010 – 9/2012   *IOTA Computing, Inc.* (Palo Alto, CA, and UK)

Co-founder and CTO. Invented innovative combination Internet-Centric Software Operating System and MCU chip for the Internet of Things ('IoT'). Multiple patents granted and pending. Extreme Ultra Low Power. Helped raise $2.5m funding. Managed and grew software and hardware development team.

2008 – 2010   *Self-employed - Independent Consultant.*

Wide range of software and hardware development, consulting, and especially Patent Expert Witness litigation and forensics work.

Did two projects for 3M Rochford Thompson (3M acquired the UK passport scanner manufacturer in 2007), developing software for their passport scanners (and e-passport readers) as used across the world in international airports and other border control points. Also developed communications software for mobile passport scanning.

2006 – 2008   *Martian Gaming Ltd (London)*

Co-founder and CTO of innovative Online Mobile Gaming platform technologies organisation. Established company. Raised Angel finance ($1m). Launched in Ukraine with major Telecoms provider (Life). Had exclusive contract with PartyGaming. Also with Zero36, 888Mobile. Developed native and Java (J2ME) apps for mobiles phones, web/cloud server solutions (LAMP, J2EE) to interface to mobile phone network operators and online gaming platforms. Much business with gaming operator PartyGaming in Gibraltar, Eastern European gaming and telecoms companies (especially Ukraine and Russia), and Israel (gaming operators and software development companies).

2004 – 2006   *CTO, Cibenix Ltd (Dublin, Ireland)*

Mobile phone On-Device Portal (ODP) software company. Led server (LAMP, Java - J2EE) and client (Symbian & Java - J2ME) development. Managed software team of 14 engineers.

Press release about my appointment:
http://www.tornado-insider.com/press/presses.asp?pressid=7031

2003 – 2004   *Self-employed - Independent Consultant.*

Various software and hardware development projects, and Patent Expert Witness work.

1997 – 2003   *Informal Software (UK & Santa Clara, CA, USA)*

Founder, CEO & CTO.
Established innovative software company based on my 'Informal Interface' PhD research. Raised $8m Angel and VC finance.

Licensing negotiations with Apple and Adobe. Grew company to 40+ people on both sides of the Atlantic. Won **DemoGod** Award. Worked with POS manufacturer Alphameric plc (London Stock Exchange listed company). Developed POS system ('Wireless Food Ordering System") for 3M Food Services Division (Minneapolis) under $50K NRE contract. Also part-time Consultant. One of the Architects of the **Symbian** *Operating System (1997).*

1996 - 1997　　　　*Two Way TV (London)*

CTO (consultant).
Two Way TV was an innovative interactive TV company, making user-interactive television and games in the latter days of analogue broadcasts, and the transitioning to digital (DVB standards).

The company designed its own set-top box (and associated systems software), custom handheld remote control, bank-end server systems, billing, and interactive program content.

1994 – 1996　　　　*Xircom, Inc. (Thousand Oaks, California, USA)*

Software Director. Created award-winning innovative Ethernet/modem installer software products. Invented 'plug & play' for Windows 95 before Microsoft. As a consultant, developed software for Palm devices to interface to cellular phones via the serial port, to enable sending & receiving of text (SMS) messages etc.

1992 – 1994　　　　*Digital Research Inc.('DRI') (Hungerford, UK and Monterey, California USA)*

DR DOS, Netware Operating System and PalmDOS development work. Created DOS power management systems. DRI was acquired by Novell. Developed secure login software client.

1988 – 1991　　　　*Poqet Computer Corp.(Silicon Valley, California, USA)*

Co-Founder and Vice President, Software R&D
Established the company. Wrote proprietary power-managing ROM BIOS, DOS power management drivers. Created the whole PCMCIA ('PC Card') industry standard. Created software and hardware power management techniques to make the Poqet PC palmtop computer to run for 100 hours on two 'AA' batteries.

Advised Intel on low-power CPU design (386SL). Managed software team of 12 people.

EXIT: Company acquired by Fujitsu.

1986 – 1988   *D.I.P. Ltd (Guildford, Surrey)*

Founder & CTO. Invented world's first 'pocket PC'. Licensed to Atari as 'The Atari Portfolio'. Wrote PC-compatible ROM BIOS. Wrote MS-DOS clone o/s. Invented hardware and software ultra low-power systems. Pocket PC ran for 50 hours on 3 'AA' batteries.

EXIT: Company acquired by Phoenix Technologies.

1984 – 1986   *Psion Ltd (London).*

One of the first software engineers at Psion. (Psion Software became Symbian in 1998). Video games developer. Developed hand-held PDA operating system and communications software, tool chains. Helped develop innovative POS (Point of Sale) systems for their project with Marks & Spencer retailers. Firmware, software design.

1983 – 1984   *Thorn EMI (Wardour Street, London)*

Video games programmer (Atari 800, Commodore 64, Sinclair Spectrum, TI 99/4A, BBC Micro). Developed video games in assembler programming languages (6502, Z80).

1981 – 1983   *British Aerospace.(Brooklands, Weybridge, Surrey)*

Software programmer. Projects included some work for Concorde. Wrote programs in assembly language for IBM System/370 mainframes.

Education

2023 -   *Visiting Professor*, University of Hereford, UK (aka NMITE)

2019 - 2023   *Visiting Lecturer*, University of Hereford, UK (aka NMITE)

2004 – 2007   *Honorary Senior Research Fellow*, University of Birmingham, UK

1991 – 2000   *PhD, Cognitive & Computer Science*, University of Sussex, UK (part-time) Specialized in HCI – Human-Computer Interaction.

	Thesis: "An Analysis and Implementation of Informal Human-Computer Interaction"
1986	Imperial College London, Alumnus – MSc Computer Science (started course but had to put it on hold it owing to the success and time commitments of my new start-up).
1978 – 1981	*BSc (Honours) Mathematics*, King's College, University of London
	- President of the Maths Society

Continuing Education, Online & Distance Learning

2010	*Law Degree, Bachelors.* University of London, Distance Learning. Started course but decided not to pursue it further after the first semester.
2017	*The discovery of the Higgs Boson,* The Open University, UK. Achieved 98% pass marks for online tests, proved the mathematics of the 'God Particle' from first principles.
2019	*The Philosophy of Science.* Oxford University, UK.

Books, Appearances & Publications

Corporate Counsel – Best of 2019
https://images.law.com/media/cc/supplements/Best_CC_2019/mobile/index.html (Page 5)

Guest Panelist, *MAPOS (Mobile Applications and Operating Systems)*, London, February 2005

Speaker, *Roth Capital Investment Symposium*, Laguna Niguel, CA, February 2001

Guest Panelist, *Digivations Conference*, CA, September 2000

Live Interview, *Sky News Business Report*, June 2000

Live Interview, *CNBC Power Lunch Report*, June 2000

Live Webcasts, *CEOCast.com*, February 2000 & February 2001

"Pen & Paper, the Stylus, and Today's Computing Needs" Tradespeak.com, February 2000

"A New Pen and Paper Paradigm", Colorado Springs Business Journal, December 1999

Communicating With Microcomputers (1987), Sigma Press (Distributed by John Wiley & Sons). ISBN 1-85058-055-3

White House Papers (University of Sussex, 1992) *Informal Interfaces*

White House Papers (University of Sussex, 1994) *Informal Interfaces: Informality in Human-Computer Interaction*

White House Papers (University of Sussex, 1995), *An Application of AI Techniques to a Consumer Software Product*

Technologies

Extremely fluent and experienced in Assembler, C, C++, Java, Prolog, PHP, etc, VHDL, Verilog, etc. Multiple Operating System and CPU designs and architectures. All aspects (almost) of Software and Hardware. Web technologies. Communications and Internet protocols. Specialize in Power Management, PDAs, palmtops, operating systems, HCI (Human-Computer Interaction), VHDL design for FPGAs, CPLDs.

Awards

DemoGod Award, Demo 2000, Palm Springs

PC Magazine Award for Technical Excellence, Comdex Fall, Las Vegas, 1989

US Work Visas Held

O-1 : *'for the individual who possesses extraordinary ability'*. For Iota Computing Inc, 2011-2014

H-1B : US Temporary Work Visa, for Xircom, Inc. 1994-1997

H-1: US Temporary Work Visa, for Poqet Computer Corp. 1988-1991

Other Associations for 'Full-Disclosure' (Start-Ups, Consulting, Contracting):

Peavey Commercial Audio – hardware, firmware, software design consulting.

3M Rochford Thompson (Newbury, UK) – passport scanner software.

BTS Technology Inc (Santa Barbara, CA). RFID and wireless PDA applications for the Wine industry.

Indigo (Santa Barbara, California) – Omega IR camera control software.

3M (Food Division, Minneapolis) – PDA Wireless Food Ordering System.

Mobile Travel Technologies Ltd (London) – mobile applications for travel planning and booking.

Nokia (Tampere, Finland) – Research report on *Global Software Development Strategies*.

Psion Dacom (Milton Keynes). Advised on GSM Stacks in Symbian OS.

Microscribe (Wales, 1991) Developed an MS-DOS version of their CP/M ruggedized handheld device.

Brandwidth (Windsor, UK) – Windows Mobile software development for Toyota Cars.